UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,681	07/13/2001	Kenneth John Davey	90017	4801

9355 7590 05/27/2005

JACQUELINE E. HARTT, PH.D
ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST, P.A.
P.O. BOX 3791
ORLANDO, FL 32802-3791

EXAMINER	
CYGAN, MICHAEL T	

ART UNIT	PAPER NUMBER
2855	

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/905,681	DAVEY, KENNETH JOHN	
	Examiner	Art Unit	
	Michael Cygan	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,10 and 29-64* is/are pending in the application.

4a) Of the above claim(s) *30-38 and 53-64* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7,10,29 and 39-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 53-64 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 2, 4, 5, 7, 10, 29, 39-42, 44-49, 51, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davey (US 5,770,794) in view of Haupt (4,344,320). Davey teaches the claimed invention, with the exception of using positive pressure (Davey teaches using vacuum). See especially Figure 1a, which shows the high flow impedance measurement apparatus, and Figures 4-5, which show monitoring of the integrity of the abutment between two structural elements having a joiner by placing a cavity in communication with the (negative) pressure source. Constant (negative) pressure is used; see column 3 lines 14-15 and column 4 lines 43-48.

Change in the pressure differential is measured; see column 3 lines 27-38. See also columns 3-4 and 6.

Haupt teaches a method of using a positive pressure of a gas (helium) through a high flow impedance measurement apparatus [14,15] and with a helium detector to measure leaks in a system; see entire document, especially columns 3-6 and Figures 3 and 7. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use positive pressure of a gas (helium) through a high flow impedance measurement apparatus [14,15] and with a helium detector to measure leaks in a system as taught by Haupt in the invention taught by Davey to form the leak detection, since Haupt teaches that the use of positive pressure of helium can work with a high flow measurement apparatus as well as provide the additional advantages of localizing the leak location and of additional alarming with an external helium sensor.

2. Claims 6, 43, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davey (US 5,770,794) in view of Haupt (4,344,320) as applied to claims 1, 39, and 46 in view of Schulte (US 5,390,533). The claimed invention is taught except for the provision of a moisture trap between helium source and cavities. Schulte teaches the provision of a moisture trap [50] between a helium source [e.g., 42] and cavities in a system [10] and method for pressurizing a vessel for integrity testing with gas

comprising reused and dried helium (see abstract and column 4, lines 14-48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a moisture trap between helium source and cavities as taught by Schulte in the invention taught by Davey in view of Haupt to dry the entering helium gas, since this would remove water from the gas which could interfere with flow rate or mass spectrometric (Haupt analyzer [10]) measurements.

Response to Arguments

Applicant's arguments filed 19 April 2005 have been fully considered but they are not persuasive.

3. Applicant's main argument addresses the application of positive pressure to Davey, which uses a vacuum technique. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Haupt teaches that the use of positive pressure of helium can work with a high flow measurement apparatus as well as provide the additional

advantages of localizing the leak location and of additional alarming with an external helium sensor.

Furthermore, positive pressure differential pressure measurements are well known in the art, when using a high flow impedance measurement apparatus as evidenced by Grace (US 2,430,122), Dega (US 3,188,855), and Schmidt (US 4,806,913). It is noted that Oertle (US 4,145,915) teaches the equivalent use of positive and negative pressures for use in structural leak detection. These references were made of record in the Office action of 07 January 2005. Contrary to applicant's assertions, one having ordinary skill in the art would be familiar with positive and negative pressure techniques in the applicable art, as well as their interchangeability.

Since the strongest motivation for combining the teaching of a second reference with a main reference is the expectation of some advantage, and Haupt teaches an expected advantage (localizing the leak location and of additional alarming with an external helium sensor), applicable to the system of Davey, which flows from his teaching, the combination satisfies the legal requirements under 35 U.S.C. § 103.

4. Applicant's assertions about prospective disadvantages of the combination are (1) not supported and/or (2) not relevant to the merits of the combination.

The assertion that the "stability of the sensor manifolds" would be threatened is not supported. Furthermore, the combination of teachings

needs only suggest some advantage, not that every feature of the apparatus improve. Only inoperability is generally recognized as a bar to combination of teachings. Since inventions are applicable to many uses, an advantage for any particular use is considered sufficient for motivation to combine teachings to provide an invention which is better suited for that use.

5. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's asserted disadvantages in the last paragraph of page 14 and the first paragraphs of page 15 fail, since the combined invention suffers from neither disadvantage. For instance, the combined invention could use a helium pressure source as taught by Haupt, which, having no moisture, would not induce moisture induction as argued.

Similarly, the rejection clearly does not suggest applicant's idea of applying Haupt to a vacuum system; the combination is the application of a positive pressure source as taught by Haupt to the system of Davey. This could not be made more clear in the rejection, which states, "to use positive pressure of a gas (helium) through a high flow impedance measurement

apparatus [14,15] and with a helium detector to measure leaks in a system as taught by Haupt in the invention taught by Davey to form the leak detection."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cygan whose telephone number is (571) 272-2175. The examiner can normally be reached on 8:30-6 M-Th, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).